

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1986:188578 CAPLUS  
 DN 104:188578  
 ED Entered STN: 01 Jun 1986  
 TI Chitosan derivatives  
 IN Kakurai, Toshio  
 PA Dainichiseika Color and Chemicals Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C08B037-08  
 ICS B01D021-01; B01J020-24  
 CC 44-6 (Industrial Carbohydrates)  
 Section cross-reference(s): 38, 54, 61

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60233102	A2	19851119	JP 1984-89301	19840507 <--
	JP 62056163	B4	19871124		
PRAI	JP 1984-89301		19840507		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 60233102	ICM	C08B037-08
	ICS	B01D021-01; B01J020-24

AB Compns. useful as coagulants and adsorbents for metals are prepared by treating amino groups of chitosan with dicyandiamide (I) and/or cyanamide or derivs. Thus, stirring deacetylated chitosan.HCl (II) 20, I 25, and H2O 30 parts at 120-130° for 4 h gave 19.4 parts compound whose hydrochloride absorbed 0.74 mg Cu/g, vs. 0.12 for II.

ST chitosan biguanide guanidine deriv; adsorbent metal chitosan deriv; copper adsorbent chitosan deriv; dicyandiamide reaction chitosan; coagulant water chitosan deriv

IT Chelating agents  
 (polymeric, manufacture of)

IT Coagulation  
 (agents, chitosan guanide derivs., preparation of)

IT 7440-50-8, uses and miscellaneous  
 RL: USES (Uses)

(adsorbents for, chitosan guanide derivs. as)

IT 420-04-2D, reaction products with chitosan 461-58-5D, reaction products with chitosan 9012-76-4D, biguanide and guanidine derivs. 41410-39-3D, reaction products with chitosan

RL: USES (Uses)

(coagulants and adsorbents for metals)

RN 7440-50-8

RN 420-04-2D

RN 461-58-5D

RN 9012-76-4D

RN 41410-39-3D

L11 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1986-004862 [01] WPIX

DNC C1986-002298

TI Chitosan derivs. preparation - by reacting amino gp. of chitosan with dicyandiamide and/or cyanamide (derivative).

DC A92 B04 D22 J01

PA (DAIC) DAINICHISEIKA COLOR & CHEM MFG

CYC 1

PI JP 60233102 A 19851119 (198601)\* 3

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JP 62056163 B 19871124 (198750)  
ADT JP 60233102 A JP 1984-89301 19840507  
PRAI JP 1984-89301 19840507  
IC B01D021-01; B01J020-24; C08B037-08  
AB JP 60233102 A UPAB: 19930922

Prepare of derivs. having biguanido and/or guanidine gp. comprises reacting an amino gp. of chitosan with dicyandiamide and/or cyanamide (derivs.).

USE - Chitosan derivs. are new and useful as coagulant or metal ion-adsorbent.

In an example, Chitosan. HCl (deacetylation about 100%) (20 pts. weight), water (30 pts. weight) and dicyandiamide (25 pts. weight) were blended and heated and stirred at 120-130 deg. C for 4 hours. Thus, chitosan-biguanide (19.4 weight pts.) was obtd. Also chitosan.HCl (deacetylation deg.: about 100%) (4 pts. weight), water (20 pts. weight) and cyanamide (40 pts. weight) were reacted at 80 deg. C for 4 hours, to obtain chitosan-guanidine (3.49 pts. weight).

0/0

FS CPI

FA AB

MC CPI: A03-A; A10-E17; A12-M02; A12-M05; A12-W11E; B04-C02E; B11-B; B12-H04; D04-A01G; D04-B05; J01-D04; J01-F01

L11 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN

AN 1985-233102 JAPIO

TI PRODUCTION OF CHITOSAN DERIVATIVE

IN KAKURAI TOSHIO

PA DAINICHI SEIKA KOGYO KK

PI JP 60233102 A 19851119 Showa

AI JP 1984-89301 (JP59089301 Showa) 19840507

PRAI JP 1984-89301 19840507

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985

IC ICM C08B037-08

ICS B01D021-01; B01J020-24

AB PURPOSE: Dicyandiamide or cyanamide is allowed to act on the amino group in chitosan to give a novel chitosan derivative which is suitable for use as a coagulant or metal ion adsorbent, because it has biguanide and guanidine groups.

CONSTITUTION: Chitosan, preferably its acid salt such as a salt with 0.1~1.0 normal hydrochloric acid is combined with water and a metal salt such as copper chloride or chromium acetate, then allowed to react with dicyandiamide and/or cyanamide, preferably at 100~150°C for 2~7hr, to give a chitosan derivative bearing biguanide and/or guanidine groups.

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